

WO2005038936

Original document

LIGHT-EMITTING DEVICE AND METHOD FOR MANUFACTURING SAME

Patent number: WO2005038936
 Publication date: 2005-04-28
 Inventor: YAMADA MASATO (JP); SHINOHARA MASAYUKI (JP); TAKAHASHI MASANOBU (JP); ADOMI KEIZOU (JP); IKEDA JUN (JP)
 Applicant: SHINETSU HANDOTAI KK (JP); YAMADA MASATO (JP); SHINOHARA MASAYUKI (JP); TAKAHASHI MASANOBU (JP); ADOMI KEIZOU (JP); IKEDA JUN (JP)
 Classification:
 - international: **H01L21/205; H01L33/00; H01L21/02; H01L33/00; (IPC1-7): H01L33/00; H01L21/205**
 - european:
 Application number: WO2004JP15270 20041015
 Priority number(s): JP20030356955 20031016

Cited documents

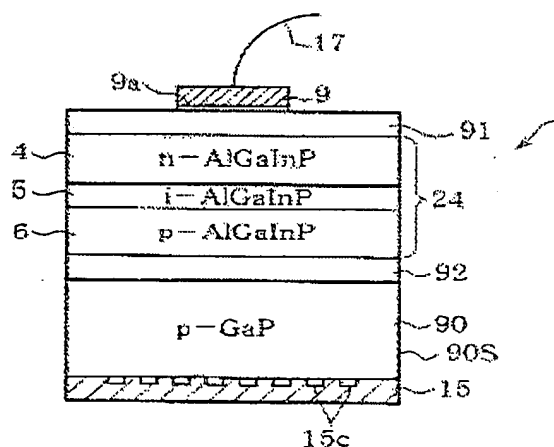
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Abstract of WO2005038936

Disclosed is a light-emitting device (100) which comprises a light-emitting layer portion (24) which is composed of a group III-V compound semiconductor and a transparent thick-film semiconductor layer (90) with a thickness of not less than 40 μm which is formed on at least one major surface side of the light-emitting layer portion (24) and composed of a group III-V compound semiconductor having a band gap energy larger than the photon energy equivalent of the peak wavelength of emission flux from the light-emitting layer portion (24). The transparent thick-film semiconductor layer (90) has a lateral surface portion (90S) which is a chemically etched surface. The dopant concentration of the transparent thick-film semiconductor layer (90) is not less than $5 \times 10^{16}/\text{cm}^3$ and not more than $2 \times 10^{18}/\text{cm}^3$. By having such a structure, the light-emitting device can have a transparent thick-film semiconductor layer while being significantly improved in light taking-out efficiency from the lateral surface portion.



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